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State of the State: Annual Mississippi Health Disparities and Inequities Report

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Table of Contents

Acknowledgments	2
Introduction to Health Disparities	6
The Social Determinants of Health	6
Health Disparity and Health Equity	6
Glossary ¹	7
Mission, Vision, and Guiding Principles of the Health Equity Team	8
Mission	8
Vision	8
Guiding Principles	8
Executive Summary: Data Report Highlights and Limitations	9
Data Limitations	9
Executive Summary: Health Disparity Outcomes	. 10
Summary of Health Disparities by Race-Ethnicity	. 10
Summary of Health Disparities by Gender	. 10
Summary of Health Disparities by Education	. 11
Summary of Health Disparities by Annual Household Income	. 11
Summary of Health Disparities by Rural/Urban Status	. 12
Major Sources of Health Disparities	. 13
Persons Living in Poverty	. 13
Median household income	. 14
Education	. 15
Rural Population	. 16
Disparities in Health Conditions	. 17
Cardiovascular Disease	. 17
Heart Disease Mortality Rates, 2021	. 17
Coronary Heart Disease Prevalence	. 19
Hypertension Mortality Rates, 2021	. 24
Stroke Mortality Rates, 2021	. 26
Stroke Prevalence	. 28
Myocardial Infarction	. 30
Overweight/Obesity Epidemic	. 35
Diabetes	. 44
Diabetes Mortality Rates, 2021	. 44

Diabetes Prevalence	46
Renal Disease	51
Renal Disease Mortality Rates, 2021	51
Renal Disease Prevalence	53
Respiratory Diseases	58
Covid-19 Mortality Rates, 2021	58
Pneumonia & Influenza Mortality Rates	60
COPD/Emphysema Mortality Rates	62
Current Asthma Prevalence	64
Lifetime Asthma Prevalence	68
Current Childhood Asthma Prevalence	71
HIV/AIDS	74
Age-Adjusted AIDS Mortality Rates, 2021	74
HIV Incidence Rates, 2019	76
HIV Proportion of Incidence	78
HIV Prevalence, 2021	80
HIV Viral Suppression 2021	82
AIDS Classifications, 2021	82
AIDS Prevalence, 2021	84
PrEP Coverage, 2021	86
Cancer	87
Skin Cancer	87
Cancer (not skin cancer)	88
Pancreatic Cancer Incidence Rates	103
Other Conditions	109
Septicemia Mortality Rates	10 9
Chronic Liver Disease & Cirrhosis	111
Alzheimer's Disease	113
Injury and Violence	115
Unintentional Injury Mortality Rates, 2021	115
Homicide Mortality Rates, 2021	117
Suicide Mortality Rates, 2021	119
Dick Easters of Illnoss	101
Everaise Drevelence	121
	121
Influenza Shot Provalence	120
Proumonia Vaccination Provolance	120
Oral Health	123
Dental Visite Broyalance	100
Deniar visits Fievalence	133
Cigaratta Smaking Provalance	130
Ligarette Sillokilly Flevalence	142
Diak Eastern aprena Demographica, Drevelance and Canfidence Intervale Courses Mississis	140
Risk Factors across Demographics, Prevalence and Confidence Intervals Source: Mississippi	

BRFSS, 2021	150
References	161

Introduction to Health Disparities

The Social Determinants of Health

It is widely understood that a person's health is influenced by biology and genetics, but there is much more to the story. The social determinants of health are pivotal to an individual and community's well-being and impact well-being as much, if not more, as genetic inheritance.

According to the World Health Organization, social determinants of health are "the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels."¹ In other words, where and how our citizens live, work, play, and learn directly impacts health.

Examples of social determinants of health include quality of education, food security, job opportunities, living wages, health insurance, public safety, workplace safety, safe and affordable housing, clean water and air, public transportation access, residential segregation, concentrated poverty, exposure to crime and violence, mass media exposure, geographic distribution of providers, social capital, social norms, intentional and unconscious bias, perceptions of discrimination, emerging technologies, and cultural and linguistic competency among health care providers.

Health Disparity and Health Equity

Differences in access and exposure to these social determinants greatly contribute to differences in health outcomes between populations. Differences in social determinants between populations can lead to a burden of illness, suffering, disability, and premature death that is often avoidable.

Healthy People 2020 defines a *health disparity* as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; gender orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion." ²

Healthy People 2020 defines *health equity* as "the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities."²

Glossary¹

Age-Adjusted: method that allows statisticians to compare populations of normal distribution. For example, a state with a particularly elderly population would present a greater number of illnesses, so age-adjusted health outcomes allow statisticians to standardize such differences.³ **Frequency:** the amount or number of occurrences of an attribute or health outcome within a population.⁴

Health Disparity: a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; gender orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.²

Health Equity: attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and eliminating health and healthcare disparities.²

Incidence: a measure of the frequency with which new cases of illness, injury, or other health condition occur, expressed explicitly per a time frame. The incidence rate is calculated as the number of new cases over a specified period divided by the average population (usually midperiod) or the cumulative person-time the population was at risk.³

Prevalence: the number or proportion of cases or attributes among a given population.³ **Proportion:** a ratio in which the numerator is included in the denominator; the ratio of a part to the whole, expressed as a "decimal fraction" (e.g., 0.2), a fraction (1/5), or a percentage (20%).³ **Rate:** an expression of the relative frequency with which an event occurs among a defined population per unit of time, calculated as the number of new cases or deaths during a specified period divided by either person-time or the average population.³

Respondent Size: number of individuals who respond to a survey item or question. **Response Bias:** cognitive bias where the respondent answers a question not true to self-opinion but in the manner s/he believes is pleasing to the interviewer.

Social Determinants of Health- the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power and resources at global, national, and local levels.⁵

¹ Glossary terms align with the Centers for Disease Control and Prevention published terminology.

Mission, Vision, and Guiding Principles of the Health Equity Team

Mission

To improve the quality of health for all Mississippians by establishing systems that enable MSDH staff to apply a health equity lens when developing health policies, programs, procedures, processes, services, and plans.

Vision

To champion and achieve health equity.

Guiding Principles

- Health equity policies should be concerned with improving living and working conditions.
- Health equity policies should be directed towards enabling people to adopt healthier lifestyles.
- Health equity policies require a genuine commitment to decentralizing power and decision-making, encouraging people to participate in every stage of the policy making process.
- Health impact assessment should be conducted together with intersectoral action.
- Health equity has mutual concern and control at the internal level.
- Health equity in healthcare is based on the principle of making high quality health care accessible to all.
- Health equity policies should be based on appropriate research, monitoring and evaluation.

Guiding principles adapted from the Programme on Health Policies and Planning of the World Health Organization Regional Office for Europe and *The Concepts and Principles of Equity and Health* by Margaret Whitehead.

Executive Summary: Data Report Highlights and Limitations

The following health outcomes are presented according to the most recent data available to the Mississippi State Department of Health's Office of Preventive Health & Health Equity and Office of Health Surveillance & Research. These data are pulled from several data sources, including the Mississippi Behavioral Risk Factor Surveillance System (BRFSS). For a list of the survey questions used, please go to http://www.cdc.gov/brfss/. Other data used come from the CDC's AtlasPlus, the Mississippi Statistically Automated Health Resource System (MSTAHRS), and the University of Mississippi Medical Center Cancer Registry. Every health outcome was analyzed by race-ethnicity, gender, education, annual household income, and rural/urban status if data were available.

Data Limitations

BRFSS data limitations include potential response bias on survey items, such as self-reported weight and dental visit frequency. Race-ethnicity is self-labeled, so this categorical cultural relativity may also skew data representation.

Another data limitation comes in the form of respondent size. Several survey items received small respondent sizes (<50), and this is indicated in the graphs. Potentially, also due to small sample sizes in data collection, the Hispanic population was not consistently represented in all analyses.

Also of note is that the "other" race-ethnicity-category was significantly represented in several of the health outcomes. Since it is not transparent whether "other" respondents are multiracial or of non-represented ethnic background, lack of consistency in data representation prevented this race-ethnicity category from being included in the report summary. However, they are represented in several of the charts where data was available. The existence of this "other" categorization should be kept in mind as practitioners design surveys, collect data, and better describe the community in which we live.

A limitation of databases, like the CDC's AtlasPlus and the Cancer Registry, is that the represented data is only for diagnosed and reported cases. There likely are a significant number of Mississippians with illnesses who are silenced and undiagnosed because of socioeconomic circumstances, miseducation, and misdiagnoses, among other potential reasons.

Cancer incidence and mortality rates are provided by the Mississippi Cancer Registry. The Mississippi Cancer Registry (MCR) is a population-based registry that collects information on cancer cases in Mississippi. The Mississippi Legislature provided funding through the Mississippi State Department of Health to establish the Mississippi Cancer Registry in 1993. The registry is supported by a cooperative agreement from the U.S. Centers for Disease Control and Prevention and UMMC. All rates are per 100,000. Rates are age-adjusted to the 2000 U.S. Standard Million Population.

Executive Summary: Health Disparity Outcomes

The data included in the below executive summary are statistically significant:

Summary of Health Disparities by Race-Ethnicity

Black Population

Compared to Mississippi's white population, the state's black population has the highest mortality rate due to heart disease, hypertension, stroke, diabetes, renal disease, Covid-19, AIDS, cancer (all sites), digestive system cancer, pancreatic cancer, breast cancer, prostate cancer, septicemia, and homicide.

This population has the higher prevalence of obesity, diabetes, current asthma, HIV, AIDS, and permanent teeth extractions. Mississippi's black population also has a higher incidence rate for digestive system cancer, colon and rectum cancer, and prostate cancer, as well as higher rates for HIV incidence and AIDS classification.

Furthermore, Mississippi's black population ranked lower for proportion of adults reporting any amount of exercise over the past month, visiting a dentist in the past year, proportion of adults age 65+ receiving a pneumonia vaccination, and proportion of adults age 65+ receiving an influenza shot within the past year. Mississippi's black population is also more uninsured.

White Population

Compared to Mississippi's black population, the state's white population has a higher prevalence of coronary heart disease, myocardial infarctions, renal disease (high in blacks), skin cancer, cancer that is not skin cancer, and overweight adults. This population also has higher mortality rates due to COPD/emphysema, chronic liver disease and cirrhosis, Alzheimer's disease, unintentional injury, and suicide.

Summary of Health Disparities by Gender

Women

Compared to Mississippi's adult men, adult Mississippi women had a higher prevalence of obesity, renal disease, current asthma, and lifetime asthma. Compared to men, Mississippi women had a lower prevalence of reporting any amount of exercise over the past month. Women also had a higher mortality rate for Alzheimer's disease. Finally, women who had indications for PrEP were less likely than men to have been prescribed PrEP to reduce their risk of HIV infection.

Men

Compared to Mississippi's adult women, adult Mississippi men had significantly higher mortality rates due to heart disease, hypertension, stroke, diabetes, renal disease, Covid-19, pneumonia & influenza, COPD/emphysema, AIDS, septicemia, chronic liver disease and cirrhosis, cancer (all sites), digestive system cancer, colon and rectum cancer, pancreatic cancer, and lung cancer, unintentional injury, homicide, and suicide.

This population also had a significantly higher prevalence of coronary heart disease, myocardial infarctions, overweight individuals, HIV, AIDS, and current smoking. This population also demonstrated a higher incidence of HIV and AIDS, as well as incidence rates for total invasive cancer, digestive systems cancer, colon and rectum cancer, and lung cancer.

In comparison to Mississippi women, fewer Mississippi men reported visiting a dentist in the past year. Mississippi's men are also more uninsured in comparison to women.

Summary of Health Disparities by Education

Those with no high school education had the highest prevalence of coronary heart disease, stroke, myocardial infarction, diabetes, renal disease, current asthma, lifetime asthma, cancer that is not skin cancer, any permanent teeth extracted, and current smoking.

Those in this education bracket also ranked lowest in the prevalence of those reporting any amount of exercise over the past month, those visiting a dentist within the past year for any reason, the proportion of age 65+ receiving a pneumonia vaccination, the proportion of adults age 65+ receiving an influenza shot within the past year, and those with any form of health care coverage.

The prevalence of obesity among Mississippi adults with less than a high school (H.S.) degree, a high school degree, or some college was higher than that of those who had completed a bachelor's degree.

Summary of Health Disparities by Annual Household Income

Those earning less than \$35,000 in annual household income had the highest prevalence of: obesity, myocardial infarction, and renal disease. Those earning less than \$25,000 in annual household income had the highest prevalence of current asthma, lifetime asthma, and current childhood asthma. Those earning less than \$15,000 in annual household income had the highest prevalence of: coronary heart disease, stroke, diabetes, permanent teeth extractions, and current smokers.

Those earning less than \$15,000 in annual household income also ranked lowest in the prevalence of: individuals reporting any amount of exercise over the past month and individuals visiting a dentist in the past year for any reason.

Those earning \$35,000 or more in annual household income were more overweight than those with a lower annual household income. Among adults earning less than \$35,000, there was a lower proportion of age 65+ receiving a pneumonia vaccination, of adults age 65+ receiving an influenza shot within the past year, and of individuals covered by any form of health care.

Summary of Health Disparities by Rural/Urban Status

Mississippi adults living in rural counties had a higher prevalence of coronary heart disease, myocardial infarction, obesity, diabetes, renal disease, and any permanent teeth extracted than those living in urban counties.

Mississippi adults living in rural counties were also lower ranked in prevalence of: individuals reporting any amount of exercise over the past month, individuals visiting a dentist in the past year for any reason, and proportion of age 65+ receiving a pneumonia vaccination.

Major Sources of Health Disparities

In 2010, our colleagues at UMMC and the MSU Social Science Research Center released *What if We Were Equal: A Mississippi Health Assessment*⁶ - an investigation of health disparities in Mississippi. In this report, the authors highlight several sources of health disparities within Mississippi, including poverty, median income, low education-attainment, and rural status. In the space below, we illustrate disparities among these factors between Mississippi and the rest of the U.S., as well as within Mississippi.

Persons Living in Poverty

According to the US Census,⁷ Mississippi has one of the highest percentages of people living in poverty. In 2019, 20.3% of the people in Mississippi were living in poverty.⁸ Within Mississippi, there were large racial disparities. Black Mississippians were more than twice as likely (31.6%) than white Mississippians (12.8%) to live in poverty.⁸



Median household income

According to the US Census,⁹ Mississippi also had one of the lowest median household incomes (\$49,111).⁹ There are substantial racial disparities. The median household income for black Mississippians (\$36,792) is slightly more than half of that for white Mississippians (\$65,012).¹⁰



Education

In 2019, Mississippi had one of the lowest high school graduation rates in the U.S.¹¹ Within Mississippi, there are also racial disparities in educational attainment. Black adults are slightly more likely not to finish high school (17.4%) than white adults (14.2%). Black adults are also less likely to complete a bachelor's degree (12.0%) than white adults (19.9%).¹² In 2017, all the state's "F"-rated school districts are majority-black, whereas the vast majority of "A"-rated schools are at least 70 percent white.¹³



High School Graduation Rates for 2019 Graduates

Source: U.S. News & World Report - Get the data - Created with Datawrapper

Rural Population

More than half of Mississippians (51.2%) live in rural areas, and only three other states have a higher proportion of people living in rural areas.¹⁴ "More than half of our doctors practice in four urban areas and all or part of our 82 counties are considered to be medically underserved. The rural nature of our state contributes to an uneven distribution of health care resources and impacts the level of health of our residents."¹⁵

Disparities in Health Conditions

Cardiovascular Disease

Heart Disease Mortality Rates, 2021

Source: MSDH Mississippi Statistically Automated Health Resource System

The age-adjusted heart disease mortality rate among Mississippians was 255.3 deaths per 100,000. There were disparities by race and gender.



The age-adjusted mortality rate for heart disease, by race-ethnicity, was the highest among black Mississippians at 278.7 deaths per 100,000.



The age-adjusted mortality rate for heart disease, by gender, was the highest among male Mississippians at 324.4 deaths per 100,000.

Coronary Heart Disease Prevalence

Source: Behavioral Risk Factor Surveillance System (BRFSS), 2021

Overall, 5.8% of Mississippi adults report having coronary heart disease. There are disparities by race, gender, education, income, and rural/urban status.



There is a statistically significant racial disparity in the prevalence of coronary heart disease. White adults are more likely than black adults to report coronary artery disease.



There is a statistically significant gender disparity in the prevalence of coronary heart disease. Males are more likely than females to report coronary artery disease.



There is a statistically significant education disparity in the prevalence of coronary heart disease. Coronary heart disease prevalence (11%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of coronary heart disease. Coronary heart disease prevalence (11.4%), by annual household income, is highest among Mississippi adults earning less than \$15,000.



There is a statistically significant rural/urban status disparity in the prevalence of coronary heart disease. Coronary heart disease prevalence (6.4%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Hypertension Mortality Rates, 2021

Source: MSDH Mississippi Statistically Automated Health Resource System

The age-adjusted hypertension mortality rate among Mississippians was 20.4 deaths per 100,000. There were disparities by race and gender.



The age-adjusted hypertension mortality, by race-ethnicity, was highest among black Mississippians at 34.7 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution



The age-adjusted hypertension mortality rate, by gender, was highest among male Mississippians at 22.2 deaths per 100,000.

Stroke Mortality Rates, 2021

Source: MSDH Mississippi Statistically Automated Health Resource System

The age-adjusted stroke mortality rate among Mississippians was 57.8 deaths per 100,000. There were disparities by race and gender.



The age-adjusted stroke mortality rate, by race-ethnicity, was highest among black Mississippians at 74.9 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted stroke mortality rate, by gender, was higher among male Mississippians at 62.3 deaths per 100,000.

Stroke Prevalence

Source: BRFSS, 2021

Overall, 5.6% of Mississippi adults report having had a stroke. Although there were no racial, gender or rural/urban disparities, there are disparities by education and income.



There is a statistically significant education disparity in the prevalence of having had a stroke. Stroke prevalence (13.6%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of having had a stroke. Stroke prevalence (9.8%), by annual household income, is highest among Mississippi adults earning \$15,000 - \$24,999.

Myocardial Infarction

Source: BRFSS, 2021

Overall, 5.4% of Mississippi adults report having had a myocardial infarction or heart attack. There are disparities by race, gender, education, income, and rural/urban status.



There is a statistically significant racial disparity in the prevalence of myocardial infarction. White adults are more likely than black adults to report myocardial infarction or heart attack.



There is a statistically significant gender disparity in the prevalence of myocardial infarction. Males are more likely than females to report myocardial infarction or heart attack.



There is a statistically significant education disparity in the prevalence of myocardial infarction. Myocardial infarction prevalence (12.5%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of myocardial infarction. Myocardial infarction prevalence (10.3%), by annual household income, is highest among Mississippi adults earning \$15,000 - \$24,999.



There is a statistically significant rural/urban status disparity in the prevalence of myocardial infarction. Myocardial infarction prevalence (5.7%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Overweight/Obesity Epidemic

Overall, 33.6% of Mississippi adults report being overweight. Although there were no disparities by rural/urban status, there are disparities by race, gender, education, and income. Source: BRFSS, 2021

Overall, 39.1% of Mississippi adults report being obese. There are disparities by race, gender, education, income, and rural/urban status. Source: BRFSS, 2021

*Note - Overweight (BMI 25.0-29.9) and Obese (BMI 30.0 - 99.8) are separate categories of weight classification.



There is a statistically significant racial disparity in the prevalence of being overweight. White adults are more likely than black adults to report being overweight.


There is a statistically significant racial disparity in the prevalence of being obese. Black adults are more likely than white adults to report being obese.



There is a statistically significant gender disparity in the prevalence of being overweight. Males are more likely than females to report being overweight.



There is a statistically significant gender disparity in the prevalence of being obese. Females are more likely than males to report being obese.



There is a statistically significant education disparity in the prevalence of being overweight. The highest overweight prevalence (36.7%), by education, is among Mississippi adults with a college degree.



There is a statistically significant education disparity in the prevalence of being obese. The highest obesity prevalence (40.4%), by education, is among Mississippi adults with some post high school education.



There is a statistically significant income disparity in the prevalence of being overweight. The highest overweight prevalence (52.5%), by annual household income, is among Mississippi adults earning \$200,000 or more.



There is a statistically significant income disparity in the prevalence of being obese. The highest obesity prevalence (45.3%), by annual household income, is among Mississippi adults earning between \$15,000 and \$24,999.



There is a statistically significant rural/urban status disparity in the prevalence of being obese. The highest obesity prevalence (42%), by rural/urban status, is among Mississippi adults residing in rural counties.

Diabetes

Diabetes Mortality Rates, 2021

Source: MSDH Mississippi Statistically Automated Health Resource System

The age-adjusted diabetes mortality rate among Mississippians was 42.1 deaths per 100,000. There were disparities by race and gender.



The age-adjusted diabetes mortality rate, by race-ethnicity, was highest among black Mississippians at 73.3 deaths per 100,000.



The age-adjusted diabetes mortality rate, by gender, was highest among male Mississippians at 47.7 deaths per 100,000.

Diabetes Prevalence

Overall, 15.2% of Mississippi adults report having diabetes. There are disparities by race, education, income, and rural/urban status. Source: BRFSS, 2021

*Note - having diabetes excludes pregnancy related and borderline or prediabetes. The sample size for pregnancy related diabetes was too small for analyses and there were no significant disparities for borderline or prediabetes.



There is a statistically significant racial disparity in the prevalence of diabetes. Black adults are more likely than white adults to report having diabetes.



There is a statistically significant gender disparity in the prevalence of diabetes. Females are more likely than males to report having diabetes.



There is a statistically significant education disparity in the prevalence of diabetes. Diabetes prevalence (24.3%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of diabetes. Diabetes prevalence (27.4%), by annual household income, is highest among Mississippi adults earning less than \$15,000.



There is a statistically significant rural/urban status disparity in the prevalence of diabetes. Diabetes prevalence (16.4%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Renal Disease

Renal Disease Mortality Rates, 2021

The age-adjusted kidney disease mortality rate among Mississippians was 21.4 deaths per 100,000. There were disparities by race and gender. Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted kidney disease mortality rate, by race-ethnicity, was highest among black Mississippians at 32.8 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted kidney disease mortality rate, by gender, was highest among male Mississippians at 24.5 deaths per 100,000.

Renal Disease Prevalence

Overall, 2.6% of Mississippi adults report having kidney disease. There are disparities by race, gender, education, income, and rural/urban status. Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of kidney disease. Black adults are more likely than white adults to report having renal disease.



There is a statistically significant gender disparity in the prevalence of kidney disease. Females are more likely than males to report having renal disease.



There is a statistically significant education disparity in the prevalence of kidney disease. Renal disease prevalence (4.4%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of kidney disease. Renal disease prevalence (4.4%), by annual household income, is highest among Mississippi adults earning \$15,000 to \$24,999.



There is a statistically significant rural/urban status disparity in the prevalence of kidney disease. Renal disease prevalence (3.5%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Respiratory Diseases

Covid-19 Mortality Rates, 2021

The age-adjusted Covid-19 mortality rate among Mississippians was 146.4 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted Covid-19 mortality rate, by race-ethnicity, was highest among black Mississippians at 167.9 deaths per 100,000.



The age-adjusted Covid-19 mortality rate, by gender, was highest among male Mississippians at 175.6 deaths per 100,000.

Pneumonia & Influenza Mortality Rates

The age-adjusted pneumonia and influenza mortality rate among Mississippians was 20 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted pneumonia and influenza mortality rate, by race-ethnicity, was highest among black Mississippians at 22.4 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted pneumonia and influenza mortality rate, by gender, was highest among male Mississippians at 24.4 deaths per 100,000.

COPD/Emphysema Mortality Rates

The age-adjusted COPD and emphysema mortality rate among Mississippians was 59.2 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted COPD and emphysema mortality rate, by race-ethnicity, was highest among white Mississippians at 69.1 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted COPD and emphysema mortality rate, by gender, was highest among male Mississippians at 65.1 deaths per 100,000.

Current Asthma Prevalence

Overall, 10% of Mississippi adults report currently having asthma. Although there were no disparities by rural/urban status, there are disparities by race, gender, education, and income. Source: BRFSS, 2020



There is a statistically significant racial disparity in the prevalence of current asthma. Black adults are more likely than white adults to currently have asthma.



There is a statistically significant gender disparity in the prevalence of current asthma. Females are more likely than males to currently have asthma.



There is a statistically significant education disparity in the prevalence of current asthma. The current asthma prevalence (16.6%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of current asthma. Current asthma prevalence (14.2%), by annual household income, is highest among Mississippi adults earning less than \$15,000.

Lifetime Asthma Prevalence

Overall, 15% of Mississippi adults report having ever had asthma. Although there were no disparities by race and rural/urban status, there are disparities by gender, education, and income.

Source: BRFSS, 2021



There is a statistically significant gender disparity in the prevalence of lifetime asthma. Females are more likely than males to have ever had asthma.



There is a statistically significant educational disparity in the prevalence of lifetime asthma. Lifetime asthma prevalence (21.1%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of lifetime asthma. Lifetime asthma prevalence (24.0%), by annual household income, is highest among Mississippi adults earning less than \$15,000.

Current Childhood Asthma Prevalence

Overall, 11.9% of Mississippi parents reported their child currently has asthma. There were disparities by race, gender, income, and rural/urban status of the parent. Source: BRFSS, 2021



There is a statistically significant racial disparity among parents in the prevalence of current childhood asthma. Black adults are more likely than white adults to currently have asthma.


There is a statistically significant gender disparity among parents in the prevalence of current childhood asthma. Females are more likely than males to have ever had asthma.



There is a statistically significant income disparity among parents in the prevalence of current childhood asthma. Current childhood asthma prevalence (26.4%), by annual household income of the parent, is highest among Mississippi adults earning less than \$15,000.

HIV/AIDS

Age-Adjusted AIDS Mortality Rates, 2021

The AIDS mortality rate among Mississippians 13 years of age and older was 5.6 per 100,000. There were disparities by race and gender. Source: CDC NCHHSTP AtlasPlus



The AIDS mortality rate for black Mississippians (10.4) was significantly higher than the rate for white Mississippians (2.1).



The AIDS mortality rate for males (8.1) was significantly higher than the rate for females (3.3).

HIV Incidence Rates, 2019

The incidence rate of HIV diagnosis among Mississippians 13 years of age and older was 17 per 100,000. There were disparities by race and gender. Source: CDC NCHHSTP AtlasPlus



The incidence rate for black Mississippians (34) was significantly higher than the rate for white Mississippians (6.6).



The incidence rate for males (25.7) was significantly higher than the rate for females (8.8).

HIV Proportion of Incidence

In 2019, there were 477 news cases of HIV infection among Mississippians 13 years of age and older.

Source: CDC NCHHSTP AtlasPlus



Black Mississippians accounted for 76.3% of all new HIV cases, while white Mississippians accounted for 18.2% of all new cases.



In 2019, males accounted for 80.2% of all new HIV cases, while females accounted for 19.8% of all new cases.

HIV Prevalence, 2021

The prevalence rate of HIV infection among Mississippians 13 years of age and older was 399.8 per 100,000. There were disparities by race and gender. Source: CDC NCHHSTP AtlasPlus



The prevalence rate for black Mississippians (793.9) was significantly higher than the rate for white Mississippians (130.5).



The prevalence rate for males (585.6) was significantly higher than the rate for females (226.8).

HIV Viral Suppression 2021

Viral suppression was defined as a viral load result of <200 copies /mL at the most recent viral load test during the previous year. Among Mississippians 13 years of age and older living with HIV, 59.6% had HIV viral suppression. There were no disparities by race or gender. Source: CDC NCHHSTP AtlasPlus

AIDS Classifications, 2021

The AIDS classification rate among Mississippians 13 years of age and older was 7 per 100,000. There were disparities by race and gender. Source: CDC NCHHSTP AtlasPlus



The classification rate for black Mississippians (14.4) was significantly higher than the rate for white Mississippians (2.3).



The classification rate for males (11.1) was significantly higher than the rate for females (3.3).

AIDS Prevalence, 2021

The AIDS prevalence rate among Mississippians 13 years of age and older was 190 per 100,000. There were disparities by race and gender. Source: CDC NCHHSTP AtlasPlus



The prevalence rate for black Mississippians (379.6) was significantly higher than the rate for white Mississippians (57.9).



The prevalence rate for males (277.4) was significantly higher than the rate for females (108.6).

PrEP Coverage, 2021

PrEP coverage, reported as a percentage, is calculated as the number of persons aged ≥ 16 years classified as having been prescribed PrEP divided by the estimated number of persons aged ≥ 16 years who had indications for PrEP. Overall, 23.2% of Mississippians aged ≥ 16 years who had indications for PrEP. Although data were not available for race, there were gender disparities.

Source: CDC NCHHSTP AtlasPlus



Males who had indications for PrEP were more likely to be prescribed PrEP (37.6%) than females (26.4%).

Cancer

Skin Cancer

Overall, 6.6% of Mississippi adults report having had skin cancer. There were no disparities by gender, education, income or rural/urban status, but there is a disparity by race. Source: BRFSS, 2021

Race	Skin Cancer Prevalence by Race, MS, 2021
White	10.30%
Black	*

*Prevalence estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3.

There is a statistically significant racial disparity in the prevalence of skin cancer. White adults are more likely than black adults to report having had skin cancer.

Cancer (not skin cancer)

Overall, 7.9% of Mississippi adults report having had some other type of cancer. There were no disparities by gender or rural/urban status, but there are disparities by race, education, and income.

Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of other types of cancer. White adults are more likely than black adults to report having had some other type of cancer.



There is a statistically significant educational disparity in the prevalence of having other types of cancer. Other types of cancer prevalence (10.0%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of having other types of cancer. Other types of cancer prevalence (10.1%), by annual household income, is highest among Mississippi adults earning between \$35,000 - \$49,999.

All Cancer Sites

The age-adjusted cancer mortality rate is 175.4 Mississippian deaths per 100,000 population. Among all Mississippians, there were cancer mortality disparities by race and gender. Source: MS Cancer Registry 2020



By race-ethnicity, the age adjusted cancer mortality rate is 196.3 deaths among black Mississippians and 166.5 deaths among white Mississippians, per 100,000 population.



By gender, the age adjusted cancer mortality rate is 214.3 deaths among male Mississippians and 147.3 deaths among female Mississippians, per 100,000 population.

Invasive Cancer Incidence Rates

The age-adjusted invasive cancer incidence rate in Mississippi is 409.6 occurrences per 100,000 population. Among all Mississippians, there were cancer incidence disparities by gender, but not race. The finding that mortality rates for all cancers were higher for black Mississippians despite there being no differences in incidence rates suggests that black Mississippians have less access to healthcare.

Source: MS Cancer Registry 2020



By gender, in 2020, among all Mississippians, total invasive cancers affected 465.7 males and 368.9 females per 100,000 population.

Digestive System Cancer Mortality Rates

The age-adjusted digestive system cancer mortality rate is 48.1 Mississippian deaths per 100,000 population. Among all Mississippians, there were digestive system cancer mortality disparities by race and gender.

Source: MS Cancer Registry 2020



By race-ethnicity, the age adjusted digestive system cancer mortality rate is 57.6 deaths among black Mississippians and 43.8 deaths among white Mississippians, per 100,000 population.



By gender, in 2020, the age adjusted digestive system cancer mortality rate is 60.2 deaths among male Mississippians and 37.9 deaths among female Mississippians, per 100,000 population.

Digestive System Cancer Incidence Rates

The age-adjusted digestive system cancer incidence rate in Mississippi is 79.9 occurrences per 100,000 population. Among all Mississippians, there were digestive system cancer incidence disparities by race and gender.

Source: MS Cancer Registry 2020



By race-ethnicity, in 2020, among all Mississippians, total digestive system cancers affected 94.4 black Mississippians and 73.2 white Mississippians per 100,000 population.



By gender, in 2020, among all Mississippians, total digestive system cancers affected 96.0 males and 66.4 females per 100,000 population.

Colon and Rectum Cancer Mortality Rates

The age-adjusted colon and rectum cancer mortality rate is 17.2 Mississippian deaths per 100,000 population. Among all Mississippians, there were colon and rectum cancer mortality disparities by race and gender.

Source: MS Cancer Registry, 2020



By race-ethnicity, the age adjusted colon and rectum cancer mortality rate is 22.0 deaths among black Mississippians and 14.8 deaths among white Mississippians, per 100,000 population.



By gender, the age adjusted colon and rectum cancer mortality rate is 22.1 deaths among male Mississippians and 13.3 deaths among female Mississippians, per 100,000 population.

Colon and Rectum Cancer Incidence Rates

The age-adjusted colon and rectum cancer incidence rate in Mississippi is 40.1 occurrences per 100,000 population. Among all Mississippians, there were colon and rectum cancer incidence disparities by race and gender.

Source: MS Cancer Registry, 2020



By race-ethnicity, in 2020, among all Mississippians, total colon and rectum cancers affected 48.6 black Mississippians and 36.1 white Mississippians per 100,000 population.



By gender, in 2020, among all Mississippians, total colon and rectum cancers affected 47.5 males and 33.9 females per 100,000 population.

Pancreatic Cancer Mortality Rates

The age-adjusted pancreatic cancer mortality rate is 12.7 Mississippian deaths per 100,000 population. Among all Mississippians, there were pancreatic cancer mortality disparities by race. Source: MS Cancer Registry, 2020



By race-ethnicity, the age adjusted pancreatic cancer mortality rate is 15.0 deaths among black Mississippians and 11.7 deaths among white Mississippians, per 100,000 population.

Pancreatic Cancer Incidence Rates

The age-adjusted pancreatic cancer incidence rate in Mississippi is 13.3 occurrences per 100,000 population. Among all Mississippians, there were no disparities in pancreatic cancer incidence rates in Mississippi.

Source: MS Cancer Registry

Lung and Bronchus Mortality Rates

The age-adjusted lung and bronchus cancer mortality rate is 45.6 Mississippian deaths per 100,000 population. Among all Mississippians, there were lung and bronchus cancer mortality disparities by gender, but not race.

Source: MS Cancer Registry, 2020



By gender, in 2020, the age adjusted lung and bronchus cancer mortality rate is 61.9 deaths among male Mississippians and 33.3 deaths among female Mississippians, per 100,000 population.

Lung and Bronchus Cancer Incidence Rates

The age-adjusted lung and bronchus cancer incidence rate in Mississippi is 59.0 occurrences per 100,000 population. Among all Mississippians, there were lung and bronchus cancer incidence disparities by gender but not race. Source: MS Cancer Registry, 2020



By gender, in 2020, among all Mississippians, total lung and bronchus cancers affected 76.3 males and 45.9 females per 100,000 population.

Female Breast Cancer Mortality Rates

The age-adjusted female breast cancer mortality rate is 24.9 female Mississippian deaths per 100,000 population. Among all female Mississippians, there were breast cancer mortality disparities by race.

Source: MS Cancer Registry, 2020



By race-ethnicity, the age adjusted female breast cancer mortality rate is 34.4 deaths among black Mississippians and 20.1 deaths among white Mississippians, per 100,000 population.

Female Breast Cancer Incidence Rates

The age-adjusted female breast cancer incidence rate in Mississippi is 136.9 occurrences per 100,000 population. Among all female Mississippians, there were no disparities by race in female breast cancer incidence rates. Source: MS Cancer Registry, 2020

Prostate Cancer Mortality Rates

The age-adjusted prostate cancer mortality rate is 22.5 male Mississippian deaths per 100,000 population. Among all male Mississippians, there were prostate cancer mortality disparities by race.

Source: MS Cancer Registry, 2020



By race-ethnicity, the age-adjusted prostate cancer mortality rate is 40.0 deaths among black Mississippians and 16.6 deaths among white Mississippians per 100,000 population.
Prostate Cancer Incidence Rates

The age-adjusted prostate cancer incidence rate in Mississippi is 109.0 occurrences per 100,000 population. Among all male Mississippians, there were disparities by race. Source: MS Cancer Registry, 2020



By race-ethnicity, in 2020, among all male Mississippians, total prostate cancer affected 160.7 black Mississippians and 87.7 white Mississippians per 100,000 population.

Other Conditions

Septicemia Mortality Rates

The age-adjusted septicemia mortality rate among Mississippians was 10.7 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System 2021



The age-adjusted septicemia mortality rate, by race-ethnicity, was highest among black Mississippians at 12.1 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted septicemia mortality rate, by gender, was highest among male Mississippians at 12.5 deaths per 100,000.

Chronic Liver Disease & Cirrhosis

The age-adjusted chronic liver disease and cirrhosis mortality rate among Mississippians was 18.0 deaths per 100,000. There were disparities by race and gender. Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted chronic disease and cirrhosis mortality rate, by race-ethnicity, was highest among white Mississippians at 20.5 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted chronic disease and cirrhosis mortality rate, by gender, was highest among male Mississippians at 21.4 deaths per 100,000.

Alzheimer's Disease

The age-adjusted Alzheimer's disease mortality rate among Mississippians was 52.9 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted Alzheimer's disease mortality rate, by race-ethnicity, was highest among white Mississippians at 55.9 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted Alzheimer's disease mortality rate, by race-ethnicity, was highest among female Mississippians at 62.2 deaths per 100,000.

Injury and Violence

Unintentional Injury Mortality Rates, 2021

The age-adjusted unintentional injury mortality rate among Mississippians was 81.6 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted unintentional injury mortality rate, by race-ethnicity, was highest for white Mississippians at 89.7 deaths per 100,000.



The age-adjusted unintentional injury mortality rate, by gender, was highest among male Mississippians at 113.0 deaths per 100,000.

Homicide Mortality Rates, 2021

The age-adjusted homicide mortality rate among Mississippians was 24.0 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted homicide mortality rate, by race-ethnicity, was highest among black Mississippians at 47.8 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted homicide mortality rate, by gender, was highest among male Mississippians at 39.6 deaths per 100,000.

Suicide Mortality Rates, 2021

The age-adjusted suicide mortality rate among Mississippians was 13.9 deaths per 100,000. There were disparities by race and gender.

Source: MSDH Mississippi Statistically Automated Health Resource System



The age-adjusted suicide mortality rate, by race-ethnicity, was highest among white Mississippians at 21.1 deaths per 100,000.

*Denotes < 20 events. Due to a small number of events, these rates are unstable and should be interpreted with caution.



The age-adjusted suicide mortality rate, by gender, was highest among male Mississippians at 27.8 deaths per 100,000.

Risk Factors of Illness

Exercise Prevalence

Overall, 69.1% of Mississippi adults report past thirty-day exercise. There are disparities by race, gender, education, income, and rural/urban status. Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of past thirty-day exercise. White adults are more likely than black adults to report any exercise during the past month.



There is a statistically significant gender disparity in the prevalence of past thirty-day exercise. Males are more likely than females to report any exercise during the past month.



There is a statistically significant education disparity in the prevalence of past thirty-day exercise. Past thirty-day exercise prevalence (80.2%), by education, is highest among Mississippi adults with a college degree.



There is a statistically significant income disparity in the prevalence of past thirty-day exercise. Past thirty-day exercise prevalence (89.2%), by annual household income, is highest among Mississippi adults earning \$200,000 or more.



There is a statistically significant rural/urban status disparity in the prevalence of past thirty-day exercise. Past thirty-day exercise prevalence (70.3%), by rural/urban status, is higher among Mississippi adults residing in urban counties.

Immunizations

Influenza Shot Prevalence

Overall, 62.3% of Mississippi adults aged 65 and older report receiving an influenza shot within the past year. Although there were no disparities by gender or rural/urban status, there are disparities by race, education, and income. Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of Mississippi adults aged 65 and older receiving an influenza shot within the past year. White adults aged 65 and older are more likely than black adults aged 65 and older to report receiving an influenza shot within the past year.



There is a statistically significant education disparity in the prevalence of an adult age 65 and older receiving an influenza shot within the past year. Influenza shot prevalence (71.2%), by education, is highest among Mississippi adults aged 65 and older with a college degree.



There is a statistically significant income disparity in the prevalence of an adult age 65 and older receiving an influenza shot within the past year. Influenza shot prevalence (70.0%), by annual household income, is highest among Mississippi adults aged 65 and older who earn \$50,000 or more.

Pneumonia Vaccination Prevalence

Overall, 63.2% of Mississippi adults aged 65 and older report having ever received a pneumonia vaccination. Although there are no rural/urban status disparities, there are disparities by race, gender education, and income. Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of Mississippi adults aged 65 and older who have ever received a pneumonia vaccination. White adults aged 65 and older are more likely than black adults aged 65 and older to report having ever received a pneumonia vaccination.



There is a statistically significant gender disparity in the prevalence of Mississippi adults aged 65 and older who have ever received a pneumonia vaccination. Female adults aged 65 and older are more likely than male adults aged 65 and older to report having ever received a pneumonia vaccination.



There is a statistically significant education disparity in the prevalence of an adult aged 65 and older ever receiving a pneumonia vaccination. Pneumonia vaccination prevalence (69.2%), by education, is highest among Mississippi adults aged 65 and older with a college degree.



There is a statistically significant income disparity in the prevalence of an adult age 65 and older ever receiving a pneumonia vaccination. Pneumonia vaccination prevalence (78.4%), by annual household income, is highest among Mississippi adults aged 65 and older who earn \$100,000 or more.

Oral Health

Dental Visits Prevalence

Overall, 57.7% of Mississippi adults report visiting a dentist within the past year. There are disparities by race, gender, education, income, and rural/urban status. Source: BRFSS, 2020



There is a statistically significant racial disparity in the prevalence of Mississippi adults who report visiting the dentist within the past year. White adults are more likely than Black adults to report visiting the dentist within the past year.



There is a statistically significant gender disparity in the prevalence of Mississippi adults who report visiting the dentist within the past year. Females are more likely than males to report visiting the dentist within the past year.



There is a statistically significant education disparity in the prevalence of visiting the dentist within the past year. Dental visit prevalence (73.1%), by education, is highest among Mississippi adults with a college degree.



There is a statistically significant income disparity in the prevalence of visiting the dentist within the past year. Dental visit prevalence (71.3%), by annual household income, is highest among Mississippi adults who earn \$50,000 or more.



There is a statistically significant rural/urban disparity in the prevalence of visiting the dentist within the past year. Dental visit prevalence (59.4%), by rural/urban status, is higher among Mississippi adults residing in urban counties.

Permanent Teeth Extraction Prevalence

Overall, 52.0% of Mississippi adults report having a permanent tooth extracted. Although there are no gender disparities, there are disparities by race, education, income, and rural/urban status. Source: BRFSS, 2020



There is a statistically significant racial disparity in the prevalence of Mississippi adults who report ever having a permanent tooth extracted. Black adults are more likely than white adults to report ever having a permanent tooth extracted.



There is a statistically significant education disparity in the prevalence of ever having a permanent tooth extracted. Permanent teeth extraction prevalence (71.6%), by education, is highest among Mississippi adults with less than a high school degree.



There is a statistically significant income disparity in the prevalence of ever having a permanent tooth extracted. Permanent teeth extraction prevalence (66.7%), by annual household income, is highest among Mississippi adults who earn less than \$15,000.



There is a statistically significant rural/urban status disparity in the prevalence of ever having a permanent tooth extracted. Permanent teeth extraction prevalence (56.8%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Cigarette Smoking Prevalence

Overall, 19.6% of Mississippi adults report smoking cigarettes within the past thirty days. Although there are no racial disparities, there are disparities by gender, education, income and rural/urban status.

Source: BRFSS, 2021



There is a statistically significant gender disparity in the prevalence of Mississippi adults who smoked a cigarette in the past thirty days. Males are more likely than females to report past thirty-day cigarette smoking.



There is a statistically significant education disparity in the prevalence of past thirty-day smoking. The current smoking prevalence (36.1%), by education, is highest among Mississippi adults with less than a high school degree.


There is a statistically significant income disparity in the prevalence of past thirty-day smoking. The current smoking prevalence (32.2%), by annual household income, is highest among Mississippi adults who earn \$15,000 - \$24,999.



There is a statistically significant rural/urban status in the prevalence of past thirty-day smoking. The current smoking prevalence (20.8%), by rural/urban status, is higher among Mississippi adults residing in rural counties.

Health Insurance Coverage Prevalence

Overall, 89.6% of Mississippi adults report having any kind of health care coverage. Although there was no disparity by rural/urban status, there are disparities by race, gender, education, and income.

Source: BRFSS, 2021



There is a statistically significant racial disparity in the prevalence of Mississippi adults who report having any kind of health care coverage. White adults are more likely than black adults to report having any kind of healthcare coverage.



There is a statistically significant gender disparity in the prevalence of Mississippi adults who report having any kind of health care coverage. Females are more likely than males to report having any kind of health care coverage.



There is a statistically significant education disparity in the prevalence of having health care coverage. Health care coverage prevalence (94.7%), by education, is highest among Mississippi adults with a college degree.



There is a statistically significant income disparity in the prevalence of healthcare coverage. Healthcare coverage prevalence (96.7%), by annual household income is highest among Mississippi adults who earn \$50,000 or more.

Risk Factors across Demographics, Prevalence and Confidence Intervals Source: Mississippi BRFSS, 2021

In the following pages, the prevalence and confidence intervals for each estimate are presented for risk factors assessed by the 2021 Mississippi BRFSS.

Coronary Heart Disease	%	Lower	Upper
Overall	5.8	5	6.7
Race-ethnicity			
Black	4.1	3	5.2
White	6.6	5.5	7.6
Gender			
Male	6.4	5.1	7.6
Female	5.3	4.2	6.5
Education			
Less than H.S.	11	7.5	14.6
H.S. or G.E.D.	5.2	4	6.4
Some post-H.S.	5.2	3.8	6.6
College Graduate	3.8	2.8	4.8
Income			
Less than \$15,000	11.4	7.3	15.5
\$15,000-\$24,999	9.6	6.8	12.5
\$25,000-\$34,999	5.1	3.1	7.1
\$35,000-\$49,999	3.5	2.1	5
\$50,000-\$99,999	5.1	3.2	6.9
Rural/Urban Status			
Urban Counties	5.6	4.7	6.5
Rural Counties	6.4	4.5	8.2

Ever had a Stroke	%	Lower	Upper
Overall	5.6	4.7	6.4
Race-ethnicity			
Black	4.9	3.6	6.1
White	5.7	4.6	6.8
Gender			
Male	5.4	4.4	6.6
Female	5.7	4.5	6.9
Education			
Less than H.S.	13.6	9.6	17.6
H.S. or G.E.D.	5.7	4.2	7.1
Some post-H.S.	3.8	2.7	4.8
College Graduate	2.6	1.7	3.5
Income			
Less than \$15,000	8	4.6	11.3
\$15,000-\$24,999	9.8	6.6	12.9
\$25,000-\$34,999	7.9	5.2	10.6
\$35,000-\$49,999	3.9	2	5.9
\$50,000-\$99,999	2.6	1.4	3.7
Rural/Urban Status			
Urban Counties	5.6	4.6	6.5
Rural Counties	5.4	3.6	7.2

Myocardial Infarction	%	Lower	Upper
Overall	5.4	4.5	6.2
Race-ethnicity			
Black	4.3	3.1	5.4
White	6	4.8	7.1
Gender			
Male	6.4	5.1	7.8
Female	4.4	3.4	5.5
Education			
Less than H.S.	12.5	8.5	16.5
H.S. or G.E.D.	5.4	4.1	6.7
Some post-H.S.	3.6	2.5	4.8
College Graduate	3.2	2.2	4.2
Income			
Less than \$15,000	5.3	2.7	7.9
\$15,000-\$24,999	10.3	6.9	13.7
\$25,000-\$34,999	6.5	4	9.1
\$35,000-\$49,999	4.6	2.6	6.5
\$50,000-\$99,999	3.6	1.9	5.2
Rural/Urban Status			
Urban Counties	5.3	4.3	6.2
Rural Counties	5.7	4.0	7.5

Annual Mississippi Health Disparities and Inequities Report | 151

Overweight	%	Lower	Upper
Overall	33.6	31.6	35.5
Race-ethnicity			
Black	30.6	27.4	33.8
White	35.1	32.7	37.4
Gender			
Male	37.5	34.5	40.5
Female	29.8	27.3	32.2
Education			
Less than H.S.	30.4	24.8	36.0
H.S. or G.E.D.	33.3	29.7	36.8
Some post-H.S.	33.3	29.8	36.8
College Graduate	36.7	33.4	40.1
Income			
Less than \$15,000	26.7	19.8	33.6
\$15,000-\$24,999	27.5	22.3	32.8
\$25,000-\$34,999	29.3	24.6	34
\$35,000-\$49,999	31.6	26.5	36.7
\$50,000-\$99,999	36.0	31.8	40.2
\$100,000-\$199,999	41.4	34.7	48.1
\$200,000+	52.5	39.4	65.6
Rural/Urban Status			
Urban Counties	33.5	31.2	35.8
Rural Counties	33.9	30.4	37.3

Obesity	%	Lower	Upper
Overall	39.1	37.1	41.1
Race-ethnicity			
Black	46.9	43.4	50.4
White	34.7	32.3	37.0
Gender			
Male	36.7	33.8	39.6
Female	41.4	38.8	44.1
Education			
Less than H.S.	39.6	33.6	45.5
H.S. or G.E.D.	38.1	34.6	41.7
Some post-H.S.	40.4	36.9	44
College Graduate	38.1	34.8	41.4
Income			
Less than \$15,000	39.7	32.0	47.3
\$15,000-\$24,999	45.3	39.5	51.1
\$25,000-\$34,999	40.6	35.4	45.8
\$35,000-\$49,999	42.7	37.2	48.3
\$50,000-\$99,999	40.7	36.5	45
\$100,000-\$199,999	35.2	28.9	41.5
\$200,000+	34.0	22.2	45.8
Rural/Urban Status			
Urban Counties	38.2	35.9	40.6
Rural Counties	41.9	38.3	45.6

Diabetes	%	Lower	Upper
Overall	15.2	13.9	16.5
Race-ethnicity			
Black	16.6	14.3	19.0
White	14.8	13.2	16.4
Gender			
Male	14.4	12.4	16.4
Female	16.0	14.3	17.8
Education			
Less than H.S.	24.3	19.3	29.3
H.S. or G.E.D.	15.8	13.5	18.1
Some post-H.S.	13.6	11.4	15.8
College graduate	10.3	8.5	12.1
Income			
Less than \$15,000	27.4	20.3	34.5
\$15,000-\$24,999	19.8	15.7	24.0
\$25,000-\$34,999	16.0	12.6	19.5
\$35,000-\$49,999	12.6	9.5	15.7
\$50,000-\$99,999	11.8	9.4	14.3
\$100,000-\$199,999	10.6	6.4	14.9
Rural/Urban Status			
Urban Counties	14.9	13.3	16.4
Rural Counties	16.4	13.9	18.9

Kidney Disease	%	Lower	Upper
Overall	2.6	2.1	3.2
Race-ethnicity			
Black	2.6	17	34
White	3.0	22	3.7
Gender	3.0	2.2	0.1
Male	23	1.6	30
	2.0	1.0	0.0
Female	2.9	2.2	3.7
Education			
Less than H.S.	4.4	2.1	6.6
H.S. or G.E.D.	2.2	1.5	3.0
Some post-H.S.	2.1	1.4	2.9
College graduate	2.8	1.9	3.7
Income			
\$15,000-\$24,999	4.4	2.4	6.4
\$35,000-\$49,999	3.4	1.6	5.2
\$50,000-\$99,999	1.8	1.0	2.6
Rural/Urban Status			
Urban Counties	24	1.8	3.0
Rural Counties	3.6	2.5	4.7

Currently Have Asthma	%	Lower	Upper
Overall	10	8.7	11.4
Race-ethnicity			
Black	10.7	8.5	12.9
White	9.4	7.9	10.8
Gender			
Male	7.5	5.6	9.4
Female	12.4	10.6	14.2
Education			
Less than H.S.	16.6	12	21.2
H.S. or G.E.D.	8.8	6.3	11.2
Some post-H.S.	9.9	7.7	12.1
College Graduate	7.3	5.7	8.9
Income			
Less than \$15,000	14.2	9.6	18.7
\$15,000-\$24,999	14.6	10.4	18.8
\$25,000-\$34,999	11.2	7.6	14.9
\$35,000-\$49,999	7.2	4.5	9.9
\$50,000-\$99,999	6.0	3.7	8.3
Rural/Urban Status			
Urban Counties	10.0	8.5	11.6
Rural Counties	9.9	7.6	12.2

Lifetime Asthma	%	Lower	Upper
Overall	15	13.5	16.5
Race-ethnicity			
Black	15.4	12.8	18
White	14.4	12.7	16.2
Gender			
Male	12.7	10.5	14.8
Female	17.2	15.1	19.2
Education			
Less than H.S.	21.1	16.2	26.0
H.S. or G.E.D.	14	11.2	16.8
Some post-H.S.	15.5	12.8	18.1
College graduate	11.4	9.3	13.5
Income			
Less than \$15,000	17.5	12.6	22.4
\$15,000-\$24,999	19.9	15.3	24.5
\$25,000-\$34,999	15.3	11.3	19.2
\$35,000-\$49,999	13.7	9.9	17.4
\$50,000-\$99,999	11.2	8.4	14.1
\$100,000-\$199,999	10.3	5.7	14.8
Rural/Urban Status			
Urban Counties	14.9	13.1	16.7
Rural Counties	15.1	12.5	17.8

Skin Cancer	%	Lower	Upper
Overall	6.6	5.7	7.4
Race-ethnicity			
Black	*		
White	10.3	9.0	11.6
Gender			
Male	6.5	5.3	7.7
Female	6.6	5.4	7.8
Education			
Less than H.S.	8.6	5.4	11.8
H.S. or G.E.D.	6.5	5.0	8.0
Some post-H.S.	5.1	3.8	6.4
College Graduate	7.7	6.2	9.2
Income			
Less than \$15,000	7.8	4.2	11.3
\$15,000-\$24,999	6.9	4.5	9.3
\$25,000-\$34,999	5.7	3.6	7.8
\$35,000-\$49,999	5.9	4.0	7.8
\$50,000-\$99,999	7.0	5.1	8.8
Rural/Urban Status			
Urban Counties	6.4	5.5	7.4
Rural Counties	6.9	5.1	8.8

Other Types of Cancer	%		Lower	Upper
Overall		7.9	7.0	8.8
Race-ethnicity				
Black		6.2	4.9	7.5
White		9.2	7.9	10.5
Gender				
Male		6.9	5.6	8.2
Female		8.8	7.5	10.1
Education				
Less than H.S.		10.0	6.9	13.1
H.S. or G.E.D.		6.5	5.0	8.0
Some post-H.S.		7.8	6.2	9.4
College graduate		8.7	7.0	10.3
Income				
Less than \$15,000		5.3	2.6	8.0
\$15,000-\$24,999		9.6	6.8	12.4
\$25,000-\$34,999		8.6	5.7	11.4
\$35,000-\$49,999		10.1	7.1	13.1
\$50,000-\$99,999	7.7		5.8	9.7
\$100,000-\$199,999		5.5	2.8	8.1
Rural/Urban Status				
Urban Counties		8.0	6.9	9.0
Rural Counties		7.6	6.0	9.1

Exercised During Past Month	%	Lower	Upper
Overall	69.1	67.3	70.9
Race-ethnicity			
Black	62.6	59.3	65.8
White	72.5	70.4	74.6
Gender			
Male	72.5	69.8	75.2
Female	66.1	63.6	68.5
Education			
Less than H.S.	58.0	52.2	63.8
H.S. or G.E.D.	63.4	60.0	66.8
Some post-H.S.	72.2	69.1	75.4
College Graduate	80.2	77.6	82.8
Income			
Less than \$15,000	46.6	38.6	54.6
\$15,000-\$24,999	59.8	54.4	65.2
\$25,000-\$34,999	65.4	60.4	70.4
\$35,000-\$49,999	72.7	67.9	77.4
\$50,000-\$99,999	75.8	72.1	79.6
\$100,000-\$199,999	82.1	76.9	87.3
\$200,000+	89.2	79.7	98.6
Rural/Urban Status			
Urban Counties	70.3	68.2	72.5
Rural Counties	65.0	61.6	68.3

Adults Age 65+ Received Pneumonia Vaccination	%	Lower	Upper
Overall	63.2	60.1	66.4
Race-ethnicity			
Black	50.1	44.1	56.1
White	67.7	64.1	71.4
Gender			
Male	59.6	54.6	64.6
Female	66.0	62.1	70.0
Education			
Less than H.S.	56.0	47.8	64.1
H.S. or G.E.D.	62.9	57.5	68.4
Some post-H.S.	65.0	59.2	70.7
College Graduate	69.2	63.8	74.6
Income			
Less than \$15,000	55.3	42.7	67.9
\$15,000-\$24,999	63.2	54.8	71.6
\$25,000-\$34,999	60.8	52.2	69.4
\$35,000-\$49,999	64.6	56.2	73.0
\$50,000-\$99,999	65.8	58.4	73.1
\$100,000-\$199,999	78.4	67.9	88.9
Rural/Urban Status			
Urban Counties	56.3	52.6	60.1
Rural Counties	56.7	51.5	61.8

Adults Age 65+ Received Influenza Shot	%	Lower	Upper
Overall	62.3	59.2	65.4
Race-ethnicity			
Black	56.9	50.9	62.9
White	64.4	60.7	68.0
Gender			
Male	61.3	56.4	66.3
Female	63.1	59.1	67.1
Education			
Less than H.S.	56.2	48.1	64.2
H.S. or G.E.D.	62.8	57.5	68.0
Some post-H.S.	60.8	54.8	66.7
College Graduate	71.2	66.1	76.4
Income			
Less than \$15,000	56.6	44.1	69.0
\$15,000-\$24,999	57.3	48.7	65.9
\$25,000-\$34,999	63.9	55.6	72.2
\$35,000-\$49,999	67.3	59.2	75.4
\$50,000-\$99,999	66.4	59.3	73.5
\$100,000-\$199,999	70.0	56.8	83.2
Rural/Urban Status			
Urban Counties	57.2	53.5	61.0
Rural Counties	57.0	51.8	62.2

Visits to Dentist for Any Reason	%	Lower	Upper
Overall	57.7	56.0	59.3
Race-ethnicity			
Black	54.4	51.7	57.2
White	59.9	57.8	61.9
Gender			
Male	54.5	51.9	57.0
Female	60.6	58.6	62.6
Education			
Less than H.S.	36.3	31.4	41.2
H.S. or G.E.D.	52.1	49.2	55.0
Some post-H.S.	62.9	60.0	65.8
College Graduate	73.1	70.6	75.7
Income			
Less than \$15,000	40.5	35.5	45.4
\$15,000-\$24,999	45.4	41.2	49.4
\$25,000-\$34,999	49.9	44.2	55.5
\$35,000-\$49,999	63.0	57.9	68.1
\$50,000-\$99,999	71.3	68.7	74.0
Rural/Urban Status			
Urban Counties	59.4	57.4	61.3
Rural Counties	52.4	49.4	55.4

Permanent Teeth Extractions	%	Lower	Upper
Overall	52	50.4	53.7
Race-ethnicity			
Black	56.4	53.6	59.2
White	50.1	48	52.2
Gender			
Male	51.3	48.7	53.8
Female	52.8	50.7	54.9
Education			
Less than H.S.	71.6	67	76.3
H.S. or G.E.D.	56.3	53.3	59.3
Some post-H.S.	49.4	46.5	52.4
College graduate	35.6	32.9	38.2
Income			
Less than \$15,000	66.7	61.9	71.6
\$15,000-\$24,999	62.5	58.4	66.6
\$25,000-\$34,999	58.9	53.1	64.6
\$35,000-\$49,999	51.7	46.4	57
\$50,000-\$99,999	39.7	36.9	42.4
Rural/Urban Status			
Urban Counties	50.5	48.6	52.5
Rural Counties	56.8	53.7	59.8

Annual Mississippi Health Disparities and Inequities Report | 158

Current Smokers	%	Lower	Upper
Overall	19.6	17.8	21.3
Race-ethnicity			
Black	19.0	16.1	21.8
White	19.6	17.6	21.7
Gender			
Male	20.7	17.9	23.5
Female	18.5	16.4	20.7
Education			
Less than H.S.	36.1	29.9	42.3
H.S. or G.E.D.	22.3	19.1	25.5
Some post-H.S.	16.3	13.6	19.0
College graduate	8.8	6.9	10.7
Income			
Less than \$15,000	31.6	23.6	39.6
\$15,000-\$24,999	32.2	26.3	38.2
\$25,000-\$34,999	21.0	16.7	25.2
\$35,000-\$49,999	16.9	12.6	21.1
\$50,000-\$99,999	13.7	10.4	17.0
Rural/Urban Status			
Urban Counties	18.2	15.1	21.0
Rural Counties	20.8	16.3	25.4

Health Care Coverage	%	Lower	Upper
Overall	89.6	88.2	90.9
Race-ethnicity			
Black	88.0	85.6	90.4
White	91.1	89.5	92.7
Gender			
Male	87.3	85.0	89.6
Female	91.7	90.1	93.2
Education			
Less than H.S.	84.9	79.9	90.0
H.S. or G.E.D.	85.5	82.7	88.2
Some post-H.S.	92.1	90.2	94.1
College graduate	94.7	93.1	96.3
Income			
Less than \$15,000	86.9	82.0	91.7
\$15,000-\$24,999	82.2	76.4	88.0
\$25,000-\$34,999	82.7	78.4	86.9
\$35,000-\$49,999	88.5	84.6	92.4
\$50,000-\$99,999	96.7	95.3	98.1
\$100,000-\$199,999	97.5	94.6	100.0
\$200,000+	93.3	84.0	100.0
Rural/Urban Status			
Urban Counties	85.9	84.1	87.7
Rural Counties	88.9	86.6	91.1

Annual Mississippi Health Disparities and Inequities Report | 159

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